ABSTRACT

Original-quality MPEG coded video is processed to produce reduced-quality MPEG coded video for trick mode operation by removing non-zero AC DCT coefficients from the 8x8 blocks of I-frames of the MPEG coded video to produce I-frames of reduced-quality MPEG coded video, and inserting freeze frames in the reduced-quality MPEG coded video. Preferably, the coded video is stored in a main file, a fast-forward file and a fast-reverse file. The fast forward file and the fast reverse files contain reduced-quality I frames corresponding to original-quality I frames in the main file. A reading of the main file produces an MPEG transport stream for an audio-visual presentation at a normal rate, a reading of the fast-forward file produces an MPEG transport stream of the audio-visual presentation in a forward direction at a fast rate, and a reading of the fast-reverse file produces an MPEG transport stream of the audio-visual presentation in a reverse direction at a fast rate. Preferably, the files share a volume that includes at least one GOP index associating the corresponding I frames of the files.